AMENDMENTS TO THE CLAIMS

1-17. Canceled

18. (Previously Presented) A method for evaluating the presence and severity of respiratory tract inflammation with or without infectious origin and the level of lung tissue injury, for predicting and for preventing the risk of complication, predicting the risk of an acute inflammation turning to a chronic process, for targeting the treatment modalities and medications to reduce tissue destruction with or without infectious origin and for evaluating the efficacy of an applied treatment, wherein the detection is performed as an immunochemical assay comprising the steps of:

a) obtaining a respiratory tract secretion sample representing whole or part of the lung;

b) contacting said sample with one or more binding substances capable of directly or indirectly recognizing one or more latent and/or active matrix metalloproteinases (MMPs) and/or related molecules (MMP-RMs) as well as activators, splice variants, inhibitors fragments, derivatives, complexes thereof either alone or in combination;

c) recording the presence of one or more of respiratory tract latent and/or active matrix metalloproteinases (MMPs) and/or related molecules (MMP-RMs) as well as fragments, splice variants, derivatives or complexes thereof either alone or in combination using one or more of the binding substances of step b) optionally tagged with a label capable of making the presence or absence of the MMPs and/or MMP-RMs alone or in combination recordable; and

d) assessing whether the MMPs and/or MMP-RMs recorded in step c) either alone or in combination are present in an amount which is

essentially higher than in a sample from a healthy control person or animal.

19. (Previously Presented) The method according to claim 18, wherein the MMPs and/or MMP-RMs alone or in combination to be determined are selected from a group consisting of matrix metalloproteinases, membrane type matrix metalloproteinases and matrix metalloproteinase related molecules such as their activators, regulators, splice variants and/or inhibitors present in respiratory secretion samples.

20. (Previously Presented) The method according to claim 18, wherein the MMPs and/or MMP-RMs alone or in combination to be determined are selected from a group comprising latent and/or active MMP-2, MMP-8, MMP-9, MMP-13, MMP-14, MT1-MMP, NGAL, their isoforms as well as fragments, splice variants, derivatives and/or complexes thereof.

21. (Previously Presented) The method according to claim 18, wherein MMP-RMs are determined based as the total amount of one or more matrix metalloproteinases and/or related molecules in their latent form.

22. (Previously Presented) The method according to claim 18, wherein latent and/or active MMP-RMs are determined based the total amount of one or more MMPs and/or MMP-RMs alone or in combination in their active form.

23. (Previously Presented) The method according to claim 18, wherein the assessment of step d is performed as a chair-side, bed-side or on-field test in a single step on an immunochromatographic test strip.

24. (Previously Presented) A test kit for evaluating the presence and severity of respiratory tract inflammation and the level of lung tissue injury, for predicting and preventing the risk of complication, for predicting the risk of an acute inflammation turning to a chronic process, for targeting the treatment modalities and medications to reduce tissue destruction with or without infection and for evaluating the efficacy of an applied treatment and medications using the method according to claims 18-22, wherein the test kit comprises one or more binding substances capable of specifically recognizing from a respiratory secretion sample representing whole or part of the lung one or more latent and/or active MMPs and/or MMP-RMs, their isoforms as well as fragments, splice variants, derivatives or complexes thereof either alone or in any combination as well as one or more optional substrates and or carriers.

25. (Currently Amended) The ~~test kit~~ method according to claim ~~24~~52, wherein the binding substances are antibodies capable of specifically recognizing latent and/or active MMPs and/or MMP-RMs alone or in combination selected from a group consisting of matrix metalloproteinases, membrane type matrix metalloproteinases and matrix metalloproteinase related molecules present in respiratory secretion samples.

26. (Currently Amended) The ~~test kit~~ method according to claim ~~24~~52, wherein the binding substances are antibodies capable of specifically recognizing matrix metalloproteinases and/or related molecules selected from a group consisting of MMP-2, MMP-8, MMP-9, MMP-13, MMP-14, (MT1-MMP) and NGAL as well as their activators, splice variants, regulators and/or inhibitors, their isoforms as well as fragments, derivatives and/or complexes thereof.

27. (Currently Amended) The ~~test kit~~ method according to claim ~~24~~52, wherein said binding substances are binding peptides,

polyclonal antibodies, monoclonal antibodies and/or fragments of polyclonal or monoclonal antibodies.

28. (Currently Amended) The ~~test kit~~ method according to claim ~~24~~52, ~~which in addition to~~ wherein a first binding substance being a monoclonal antibody ~~which~~ specifically recognizes at least one latent and/or active MMPs and/or MMP-RMs alone ~~or in combination comprises~~ and at least one second binding substance~~, which~~ recognizes another part of the same MMPs and/or MMP-RMs alone or in combination which different from the first mentioned MMPs and/or MMP-RMs.

29. (Currently Amended) The ~~test kit~~ method according to claim ~~24~~52, wherein at least one of the binding substance; capable of specifically recognizing MMPs and/or MMP-RMs alone or in combination is provided with a marker, which is adapted to give a positive signal only when the concentration of MMPs and/or MMP-RMs alone or in combination is above the concentration in samples from healthy controls.

30. (Previously Presented) The test kit according to claim 24, wherein the test kit is constructed as an immunochromatographic test strip on which the recordation and assessment can be performed in a single step as a chair-side, bed-side or on-field test.

31. Canceled

32. (Previously Presented) The use of binding substances recognizing one or more MMPs and/or MMP-RMs alone or in combination for manufacturing test kits for diagnosing the level, severity and/or disease activity phase(s) of respiratory tract inflammation, for targeting the treatment modalities, for predicting the risks caused by pro-inflammatory mediators, infectious agents as well as physical and/or environmental stress factors.

33. Canceled

34. Canceled

35. (Previously Presented) An immunochemical method for evaluating the presence and severity of respiratory tract inflammation with or without infectious origin and the level of lung tissue injury, for predicting and for preventing the risk of complication, predicting the risk of an acute inflammation turning to a chronic process, for targeting the treatment modalities and medications to reduce tissue destruction with or without infectious origin and for evaluating the efficacy of an applied treatment, wherein the detection is performed as an bed-side, chair-side or on-field assay comprising the steps of:

a) obtaining a respiratory tract secretion sample representing whole or part of the lung;

b) contacting said sample with one or more binding substances capable of directly or indirectly recognizing one or more latent and/or active matrix metalloproteinases (MMPs) and/or related molecules (MMP-RMs) as well as activators, splice variants, inhibitors fragments, derivatives, complexes thereof either alone or in combination;

c) recording the presence of one or more of respiratory tract latent and/or active matrix metalloproteinases (MMPs) and/or related molecules (MMP-RMs) as well as fragments, splice variants, derivatives or complexes thereof either alone or in combination using one or more of the binding substances of step b) optionally tagged with a label capable of making the presence or absence of the MMPs and/or MMP-RMs alone or in combination recordable; and

d) assessing whether the MMPs and/or MMP-RMs recorded in step c) either alone or in combination are present in an amount which is essentially higher than in a sample from a healthy control person or animal.

36. (Previously Presented) The immunochemical method according to claim 35, wherein the MMPs and/or MMP-RMs alone or in combination to be determined are selected from a group consisting of matrix metalloproteinases, membrane type matrix metalloproteinases and matrix metalloproteinase related molecules such as their activators, regulators, splice variants and/or inhibitors present in respiratory secretion samples.

37. (Previously Presented) The immunochemical method according to claim 35, wherein the MMPs and/or MMP-RMs alone or in combination to be determined are selected from a group comprising latent and/or active MMP-2, MMP-8, MMP-9, MMP-13, MMP-14, MT1-MMP, NGAL, their isoforms as well as fragments, splice variants, derivatives and/or complexes thereof.

38. (Previously Presented) The immunochemical method according to claim 35, wherein MMP-RMs are determined based as the total amount of one or more matrix metalloproteinases and/or related molecules in their latent form.

39. (Previously Presented) The immunochemical method according to claim 35, wherein latent and/or active MMP-RMs are determined based the total amount of one or more MMPs and/or MMP-RMs alone or in combination in their active form.

40. (Previously Presented) The immunochemical method according to claim 35, wherein the assessment of step d) is performed as a single step on a immunochromatographic test strip.

41. (Previously Presented) An immunochemical test kit for evaluating the presence and severity of respiratory tract inflammation and the level of lung tissue injury, for predicting and preventing the risk of complication, for predicting the risk of an acute inflammation turning to a chronic process, for targeting the treatment modalities and medications to reduce tissue destruction with or without infection and for evaluating the efficacy of an applied treatment and medications using bed-side, chair-side or on-field assay according to claims 35-40.

42. (Previously Presented) The immunochemical test kit according to claim 41, wherein the binding substances are antibodies capable of specifically recognizing latent and/or active MMPs and/or MMP-RMs alone or in combination selected from a group consisting of matrix metalloproteinases, membrane type matrix metalloproteinases and matrix metalloproteinases related molecules present in respiratory secretion samples.

43. (Previously Presented) The immunochemical test kit according to claim 41, wherein the binding substances are antibodies capable of specifically recognizing matrix metalloproteinases and/or related molecules selected from a group consisting of MMP-2, MMP-8, MMP-9, MMP-13, MMP-14, (MT1-MMP) and NGAL as well as their activators, splice variants, regulators and/or inhibitors, their isoforms as well as fragments, derivatives and/or complexes thereof.

44. (Previously Presented) The immunochemical test kit according to claim 41, wherein said binding substances are binding peptides, polyclonal antibodies, monoclonal antibodies and/or fragments of polyclonal or monoclonal antibodies.

45. (Previously Presented) The immunochemical test kit according to claim 41, which in addition to a first binding substance being a monoclonal antibody which specifically recognizes at least one

latent and/or active MMPs and/or MMP-RMs alone or in combination comprises at least one second binding substance, which recognizes another part of the same MMPs and/or MMP-RMs alone or in combination which different from the first mentioned MMPs and/or MMP-RMs.

46. (Previously Presented) The immunochemical test kit according to claim 41, wherein at least one of the biding substance capable of specifically recognizing MMPs and/or MMP-RMs alone or in combination is provided with a marker, which is adapted to give a positive signal only when the concentration of MMPs and/or MMP-RMs alone or in combination is above the concentration in samples from healthy controls.

47. (Previously Presented) The immunochemical test kit according to claim 41, wherein the test is constructed as an immunochromatographic test strip on which the recording and assessment can be performed in a single step.

48. Canceled

49. (Previously Presented) The use of binding substances recognizing one or more MMPs and/or MMP-RMs alone or in combination in a chair-side, bed-side or on-field test for manufacturing chair-side, bed-side or on-field test kits for diagnosing the level, severity and/or disease activity phase(s) of respiratory tract inflammation, for targeting the treatment modalities, for predicting the risks caused by pro-inflammatory mediators, infectious agents as well as physical and/or environmental stress factors.

50. Canceled

51. Canceled

52. (New) A method for evaluating the presence and severity of respiratory tract inflammation with or without infectious origin and the level of lung tissue injury, comprising the steps of:

a) contacting a respiratory tract secretion sample representing whole or part of the lung sample with an immunochromatographic test strip that comprises one or more binding substances capable of directly or indirectly recognizing one or more latent and/or active matrix metalloproteinases (MMPs) and/or related molecules (MMP-RMs) as well as activators, splice variants, inhibitors fragments, derivatives, complexes thereof either alone or in combination;

b) recording the presence of one or more of respiratory tract latent and/or active matrix metalloproteinases (MMPs) and/or related molecules (MMP-RMs) as well as fragments, splice variants, derivatives or complexes thereof either alone or in combination using one or more of the binding substances of step a) optionally tagged with a label capable of making the presence or absence of the MMPs and/or MMP-RMs alone or in combination recordable; and

c) assessing whether the MMPs and/or MMP-RMs recorded in step b) either alone or in combination are present in an amount which is essentially higher than in a sample from a healthy control person or animal.

53. (New) The method according to claim 52, wherein the MMPs and/or MMP-RMs alone or in combination to be determined are selected from a group consisting of matrix metalloproteinases, membrane type matrix metalloproteinases and matrix metalloproteinase related molecules such as their activators, regulators, splice variants and/or inhibitors present in respiratory secretion samples.

54. (New) The method according to claim 52, wherein the MMPs and/or MMP-RMs alone or in combination to be determined are selected from a group comprising latent and/or active MMP-2, MMP-8, MMP-9, MMP-13, MMP-14, MT1-MMP, NGAL, their isoforms as well as fragments, splice variants, derivatives and/or complexes thereof.

55. (New) The method according to claim 52, wherein MMP-RMs are determined based as the total amount of one or more matrix metalloproteinases and/or related molecules in their latent form.

56. (New) The method according to claim 52, wherein latent and/or active MMP-RMs are determined based the total amount of one or more MMPs and/or MMP-RMs alone or in combination in their active form.

57. (New) The method according to claim 52, wherein the assessment of step c is performed as a chair-side, bed-side or on-field test in a single step on an immunochromatographic test strip.